

## UNIT 4 TOPIC 2

### HISTORY OF NAVAL AVIATION

#### **ENABLING OBJECTIVES:**

- 4.2.1 Discuss the history of Naval Aviation, highlighting the significant events.
- 4.2.2 Explain the importance of aviation to the Navy and its impact throughout history.
- 4.2.3 Discuss Core Values in relation to Naval Aviation.

#### **REFERENCES:**

- 1. <http://www.history.navy.mil>
- 2. <http://usmilitary.about.com/careers/usmilitary/library/milinfo/>
- 3. Grossnick, R.A. *United States Naval Aviation 1910-1995*, Library of Congress Cataloging-in-Publication Data, Washington, D.C., 1997.

#### **SLIDES:**

- 4-2-1 History of Naval Aviation
- 4-2-2 Flying Machine
- 4-2-3 Eugene Ely-Takeoff and Landing
- 4-2-4 Navy's First Aircraft
- 4-2-5 First Catapult Launch
- 4-2-6 Flying School at Pensacola, FL
- 4-2-7 First Catapult Launch From a Ship
- 4-2-8 Flying Bomb
- 4-2-9 H-16
- 4-2-10 NC-4 Crossing the Atlantic
- 4-2-11 The First Carrier, *Langley*
- 4-2-12 PN-9 in a Record Breaking Flight
- 4-2-13 First Flight Over the North Pole
- 4-2-14 *Saratoga*
- 4-2-15 First Monoplane XF5B-1, First Autogiro XOP-1
- 4-2-16 Torpedo Bomber, Heavy Dive Bomber

- 4-2-17 First Escort Carrier, *Long Island*
- 4-2-18 Bombing at Pearl Harbor
- 4-2-19 *Hornet* with B-25s Aboard
- 4-2-20 XFD-1 Phantom, Truculent Turtle
- 4-2-21 PV-2 Neptune
- 4-2-22 Lt. Commander William T. Amen
- 4-2-23 First Operation of Steam Catapult
- 4-2-24 First Plane to Land at South Pole
- 4-2-25 ZPG-3W
- 4-2-26 *Freedom 7* Recovery
- 4-2-27 *Iwo Jima*
- 4-2-28 E-2A
- 4-2-29 Walleye Missile
- 4-2-30 SH-2D LAMPS
- 4-2-31 First Women Naval Flight Surgeons
- 4-2-32 Barbara Allen, First Female Aviator
- 4-2-33 F/A-18 Hornet
- 4-2-34 F-14 Tomcat
- 4-2-35 SH-60B
- 4-2-36 A6E
- 4-2-37 EA-6B
- 4-2-38 F/A-18 Super Hornet
- 4-2-39 P-3 Orions
- 4-2-40 MH-53E, H-46
- 4-2-41 SLAM-ER
- 4-2-42 C-40A
- 4-2-43 Core Values

## **UNIT 4 TOPIC 2**

### **HISTORY OF NAVAL AVIATION**

#### **CASE STUDIES:**

None

#### **VIDEO TAPES:**

None

#### **NOTES TO THE FACILITATOR:**

The main points of this topic are:

- The important events in Naval Aviation history, including wars and people.
- How the development of Naval Aviation impacted the Navy.
- How Naval Aviation relates to Core Values.

**I. INTRODUCTION**

- A. Man has dreamed of flight for many, many years. Thoughts of flight can be seen in Greek mythology as characters ride on winged horses and others attempt to fly on man-made wings.
- B. During the centuries that followed, many others would fail in this quest for flight. But some persevered and eventually gave birth to the great new development of the 20<sup>th</sup> century called flight.
- C. Although interest in airplanes as naval weapons began much earlier, the official beginning of Naval Aviation is recorded as May 8, 1911. This year marks the 90<sup>th</sup> anniversary of Naval Aviation.
- D. In this lesson, we will look at the impact Aviation has had on the Navy and the progression of Naval Aviation through the years.

**II. A FEW PIONEERS (1898-1916)**

- A. The United States Navy's official interest in airplanes emerged as early as 1898. From that point until 1909, the Navy assigned officers to investigate the possibilities of "flying machines" in the Navy. In 1909, naval officers were urging the purchase of aircraft.
- B. **1910**
  - A place was made for aviation in the organizational structure of the Navy.
  - Captain Washington I. Chambers was designated

**SHOW SLIDE 4-2-1 HISTORY OF NAVAL AVIATION****SHOW SLIDE 4-2-2 FLYING MACHINE**





DISCUSSION POINT	RELATED INSTRUCTOR ACTIVITY
<p><b>III. TEST OF STRENGTH (1917-1919)</b></p> <p><b>A. 1917</b></p> <ul style="list-style-type: none"> <li>• The first U.S. military unit sent to France in</li> </ul>	

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**DISCUSSION POINT**

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**RELATED INSTRUCTOR ACTIVITY**

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WWI, the First Aeronautic Detachment, arrived in Pauillac, France, aboard *Jupiter* (AC 3).

- The first 8-cylinder Liberty motor arrived in Washington, D.C. for testing. This motor required less than 6 weeks for design, manufacture, and assembly.
- A Navy “flying bomb,” manufactured by the Curtiss Company, was delivered to the Sperry Flying Field at Copiague, Long Island, N.Y. This bomb was designed for automatic operation carrying 1,000 pounds of explosive with a range of 50 miles and a top speed of 90 miles per hour.

**B. 1918**

- The first aircraft built at the Naval Aircraft Factory, the H-16, was flown for the first time. This was equipped with two 230-pound bombs and five Lewis machine guns.
- Lieutenant (jg) David S. Ingalls sighted and attacked an enemy Rumpler over Nieuport. Because this was his fifth aerial victory in 6 weeks, he became the Navy’s first ace.

**C. 1919**

- Departing NAS Rockaway on May 8, the NC-4 landed in the harbor at Lisbon, Portugal, completing the first crossing of the Atlantic Ocean by air.

**SHOW SLIDE 4-2-8 FLYING BOMB**

**SHOW SLIDE 4-2-9 H-16**

**SHOW SLIDE 4-2-10 NC-4 CROSSING THE ATLANTIC**

**IV. THE TWENTIES (1920-1929)**

A. The twenties stand out in history as a decade of growth for Naval Aviation.

**B. 1921**

- The following basic ratings were established in the Aviation branch: Aviation Machinist's Mate, Aviation Metalsmith, Aviation Carpenter's Mate, Aviation Rigger and Photographer.
- Development of carrier arresting gear, consisting of athwartship wires attached to weights and fore/aft wires, was initiated at Hampton Roads.

**C. 1922**

- The first all-metal airplane designed for the Navy made its first flight. Although the ST-1 twin-engine torpedo plane possessed inadequate longitudinal stability, its completion marked a step forward in the development of all-metal aircraft.
- The first carrier takeoff in the U.S. Navy was made by Lt. Virgil C. Griffin in a Vought VE-7SF from *Langley*, at anchor in the York River.
- Lt. Commander Godfrey deC. Chevalier, flying an Aeromarine, made the first landing aboard the carrier *Langley*, while underway off Cape Henry.

**SHOW SLIDE 4-2-11 THE FIRST CARRIER,  
LANGLEY**



**D. 1925**

- Commander John Rodgers, Lt. Byron J. Connell and a crew of three in an PN-9, attempting to fly from California to Honolulu, were forced down by a lack of fuel. Lost at sea for 10 days in spite of extensive air and sea search, Rodgers and his crew rigged sail from the wing fabric and set course for Kauai Island. After covering about 450 miles by sail, they were sighted by the submarine R-4, 10 miles from their goal. The 1,841.12 statute miles, flown from takeoff to their forced landing was accepted by the F.A.I. as a new world airline distance record for Class C seaplanes that remained unbeaten almost five years.
- Oleo shock-absorbing landing gear for aircraft was reported in use. This was an important technical development that provided a better landing capability for aircraft aboard carriers.

**E. 1926**

- The first flight over the North Pole was made in a trimotor Fokker named the Josephine Ford. The total trip time was 15 1/2 hours.
- Lt. Commander Frank Wagner led the F6C-2 Curtiss fighters in a simulated attack on the heavy ships of the Pacific Fleet. Coming down in almost vertical dives from 12,000 feet, the squadron achieved complete surprise and

**SHOW SLIDE 4-2-12 PN-9 IN A RECORD  
BREAKING FLIGHT**

**SHOW SLIDE 4-2-13 FIRST FLIGHT OVER  
NORTH POLE**

impressed the fleet and ship commanders with the effectiveness of their approach. This was the first fleet demonstration of dive bombing.

**F. 1928**

- The carriers *Lexington* and *Saratoga* appeared in fleet exercises for the first time, attached to opposing forces in Fleet Problem IX. This naval demonstration made a profound impression on tacticians and in the 1930 maneuvers, a tactical unit, build around the aircraft carrier, appeared in force organization for the first time.
- The first Naval flight over the South pole was made in a Ford trimotor named the Floyd Bennett. Commander Richard I. Byrd commanded the flight with Bernt Balchen piloting. The round trip, including a fuel stop on the return flight, required almost 19 hours.

**V. THE THIRTIES (1930-1939)**

**A. 1930**

- The first monoplane designed for carrier operations, a Boeing Model 205 fighter purchased by the Navy and later designated XF5B-1, was delivered for testing.

**B. 1931**

- The Navy ordered its first rotary winged aircraft, the XOP-1 autogiro, from Pitcairn Aircraft Inc.

**SHOW SLIDE 4-2-14 SARATOGA**

**SHOW SLIDE 4-2-15 FIRST MONOPLANE XF5B-1, FIRST AUTOGIRO XOP-1**

DISCUSSION POINT	RELATED INSTRUCTOR ACTIVITY
<ul style="list-style-type: none"> <li>• A contract for the XFF-1 two-seat fighter, the first naval aircraft to incorporate retractable landing gear for the purpose of improving aerodynamic cleanness and thereby increasing performance, was issued to Grumman.</li> </ul> <p><b>C. 1934</b></p> <ul style="list-style-type: none"> <li>• XBT-1, a two-seat Scout and 1,000 pound dive-bomber, was developed. This aircraft was the initial prototype in the sequence that led to the SBD Dauntless series of dive-bombers introduced to the fleet in 1938 and used throughout WW II.</li> </ul>	<p><b>SHOW SLIDE 4-2-16 TORPEDO BOMBER, HEAVY DIVE BOMBER</b></p>

**VI. WORLD WAR II (1940-1945)****A. 1940**

- Commander-in-Chief, U.S. Fleet, recommended that naval aircraft be equipped with leak-proof or self-sealing fuel tanks and with armor for pilots and observers.

**B. 1941**

- *Long Island*, first escort carrier of the U.S. Navy, was commissioned at Newport News, VA. Originally designated AVG 1, *Long Island* was a flush-deck carrier converted in 67 working days from the cargo ship *Mormacmail*.
- Japanese carrier aircraft launched a devastating attack on ships at Pearl Harbor, Hawaii, and on the military and air installations in the area.

**SHOW SLIDE 4-2-17 FIRST ESCORT CARRIER,  
*LONG ISLAND***

**SHOW SLIDE 4-2-18 BOMBING AT PEARL  
HARBOR**

**C. 1942**

- Ensign William Tepuni, USNR, piloting a Lockheed Hudson, PBO, of VP-82 based at Argentia, Newfoundland, attacked and sank the U-656 southwest of Newfoundland—the first German submarine sunk by U.S. forces in WW II.
- **Raid on Tokyo**-From a position at sea 668 miles from Tokyo, the carrier *Hornet* launched 16 B-25s of the 17<sup>th</sup> AAF Air Group for the first attack on the Japanese homeland.
- **Battle of the Coral Sea**-The first naval engagement in history fought without opposing ships making contact. U.S. carrier forces stopped a Japanese attempt to land in New Guinea by turning back the covering carrier force.
- **The Battle of Midway**- A strong Japanese thrust in the Central Pacific to occupy Midway Island was met by a greatly outnumbered U.S. carrier force. The Japanese were defeated and this put an end to their successful offensive and effectively turned the tide of the Pacific War.
- **Capture of Guadalcanal**- Air support for the U.S. Marines' first amphibious landing of WW II was provided by three carriers of Air Support Force and by Navy, Marine, and Army units of aircraft.

**SHOW SLIDE 4-2-19 HORNET WITH B-25S ABOARD**

- **Invasion of North Africa-** Carrier aircraft and escort carriers covered the landings of Army troops near Morocco and supported their operation ashore until opposing French forces surrendered.

**D. 1945**

- **Invasion of Luzon-** Southwest Pacific Force operations against Luzon were supported by carriers in several Task Force Groups. The attack lasted about three weeks with an aerial score of over 600 enemy aircraft destroyed and 325,000 tons of enemy shipping sunk.
- **Capture of Iwo Jima-** This capture was supported by two separate carrier elements of the Central Pacific Force which left 648 enemy aircraft destroyed and 30,000 tons of merchant shipping sunk. New air defense elements in the U.S. Fleet were functional including the altitude-determining radar on LSTs and a Night Fighter Director in the Air Support Commander's Organization.
- **The Okinawa Campaign-** The last and, for naval forces, the most violent of the major amphibious campaigns of WW II. Carrier air support was on a larger and more extensive scale than any previous campaign of this nature. Fast and escort carrier planes flew over 40,000 action sorties, destroyed 2,516 enemy aircraft, and



DISCUSSION POINT	RELATED INSTRUCTOR ACTIVITY
<ul style="list-style-type: none"> <li>• VAW-1 and VAW-2 were established in the Pacific and Atlantic Fleets with responsibilities for organizing and training AEW teams for carrier operations.</li> </ul> <p><b>VIII. KOREAN OPERATIONS (1950-1953)</b></p> <p><b>A. 1950</b></p> <ul style="list-style-type: none"> <li>• <b>Landings at Inchon-</b> Carrier support was provided by four carriers with close air support. The HMS <i>Triumph</i> provided air defense for the assault forces enroute.</li> <li>• The initial strikes against bridges crossing the Yalu River at Sinuiju were opposed by enemy MiG-15s. In this first encounter of Navy jets with MiGs, Lt. Commander William T. Amen in an F9F Panther scored one kill and became the first Navy pilot in history to shoot down a jet aircraft.</li> </ul> <p><b>B. 1951</b></p> <ul style="list-style-type: none"> <li>• In the first and only use of aerial torpedoes in Korean combat, 8 Skyraiders and 12 Corsairs from the <i>Princeton</i> made an attack on the Hwachon Dam.</li> <li>• HS-1, first of its kind in the Navy, was established under the command of Commander Joseph T. Watson, Jr. at NAS Key West, FL.</li> </ul>	<p><b>SHOW SLIDE 4-2-22 LT. COMMANDER WILLIAM T. AMEN</b></p>



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**DISCUSSION POINT**

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**RELATED INSTRUCTOR ACTIVITY**

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**C. 1952**

- The Navy announced that the British-developed steam catapult would be adopted for use on U.S. aircraft carriers, with the first installation on the *Hancock*.

**IX. THE NEW NAVY (1954-1959)****A. 1954**

- Commander Henry J. Jackson, in an S2F-1, was catapulted from the *Hancock* in the initial operational test of the C-11 steam catapult. A total of 254 launchings were made during this test phase.

**B. 1955**

- VQ-1, the first squadron of its type in the U.S. Navy, was established at NAS Iwakuni, Japan. First aircraft assigned were P4M-1Q Mercators.

**C. 1956**

- Seven Navy men landed in an R4D Skytrain on the ice at the South Pole-the first to stand at the spot since Captain Robert F. Scott of the Royal Navy reached it in January 1912.

**D. 1959**

- Four Naval Aviators, Lt. Colonel John H. Glenn, USMC, Lt. Commander Walter M. Schirra, Lt. Commander Alan B. Shepard, and Lt. Malcolm Scott Carpenter, USN, were among the seven men selected as prospective astronauts under

**SHOW SLIDE 4-2-23 FIRST OPERATION OF STEAM CATAPULT**

**SHOW SLIDE 4-2-24 FIRST PLANE TO LAND AT SOUTH POLE**





DISCUSSION POINT	RELATED INSTRUCTOR ACTIVITY
<ul style="list-style-type: none"> <li>• North Vietnam motor torpedo boats that attacked the <i>Maddox</i> (DD 731) patrolling international waters in the Gulf of Tonkin, were damaged and driven off by ships gunfire and rocket and strafing attacks by aircraft from the <i>Ticonderoga</i>.</li> <li>• On orders from the president to take offensive action toward preserving our right to operate in international waters, aircraft attacked motor torpedo boats and their supporting facilities at five locations along the North Vietnam coast.</li> </ul> <p>E. <b>1965</b></p> <ul style="list-style-type: none"> <li>• Seventh Fleet air units began their participation in Operation Rolling Thunder, a systematic bombing of military targets throughout North Vietnam waged by land and ship based air.</li> <li>• Carrier pilots of Seventh Fleet joined the battle in South Vietnam with a strike against Viet Cong positions near Black Virgin Mountain. Their attack was so successful that future in-country missions were assigned to the Seventh Fleet.</li> </ul> <p>F. <b>1967</b></p> <ul style="list-style-type: none"> <li>• The first application of aerial mining in Vietnam occurred when seven A-6As planted minefields in the mouths of the Song Ca and Song Giang rivers.</li> </ul>	

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**DISCUSSION POINT****RELATED INSTRUCTOR ACTIVITY**

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- An SP-5B Marlin of VP-40 at NAS North Island, CA., made the last operational flight by seaplanes of the U.S. Navy.

**G. 1969**

- The first A-7E Corsair II assigned to an operational squadron was delivered. This version of the Corsair II incorporated heads-up-display (HUD) and Project Map Display (PMDS) whereby vital information from flight and navigation instruments are projected into the pilots normal field of vision, thereby permitting him to concentrate on his mission without looking down at instruments.
- Apollo 11 Astronauts were recovered by HS-4 after the first moon landing during which Armstrong and Aldrin walked on the moon. The first person to set foot on the moon was naval aviator, Neil Armstrong.

**XI. THE SEVENTIES (1970-1980)****A. 1971**

- The Navy's newest carrier-based electronic warfare aircraft, the sophisticated EA-6B Prowler, entered service. The Prowler, a derivative of the two-place A-6 Intruder, was lengthened to accommodate a four-place cockpit and replaced the A-3 Skywarrior.



DISCUSSION POINT	RELATED INSTRUCTOR ACTIVITY
<ul style="list-style-type: none"> <li>Linebacker II operations were initiated when negotiations in the Paris peace talks stalemated. These operations involved the resumed bombing of NVN.</li> </ul> <p><b>C. 1973</b></p> <ul style="list-style-type: none"> <li>Task Force 78 was formed to conduct minesweeping operations in North Vietnamese waters under the code name Operation Endsweep. The air element was made up of HM-12, HMM-463, and HMM-165.</li> <li>The Cruise Missile Project Office was established in the Naval Air Systems Command with responsibility to develop both tactical and strategic versions of the cruise missile.</li> <li>Two women physicians graduated from the Naval Flight Surgeon Training Program, to become the first women naval flight surgeons.</li> </ul> <p><b>D. 1974</b></p> <ul style="list-style-type: none"> <li>Lt. Barbara Ann Allen became the first designated female aviator.</li> <li><i>Enterprise</i> sailed from California with VFs 1 and 2 aboard. This event marked the initial deployment of Grumman F-14 Tomcat, the Navy's newest fighter.</li> </ul> <p><b>E. 1975</b></p> <ul style="list-style-type: none"> <li>In a period of three hours Operation Frequent Wind was carried out by U.S. Navy and Marine</li> </ul>	<p><b>SHOW SLIDE 4-2-31 FIRST WOMEN NAVAL FLIGHT SURGEONS</b></p> <p><b>SHOW SLIDE 4-2-32 BARBARA ALLEN FIRST FEMALE AVIATOR</b></p>

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**DISCUSSION POINT****RELATED INSTRUCTOR ACTIVITY**

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Corps helicopters from the Seventh Fleet. This operation involved the evacuation of American citizens from the capital of South Vietnam and could be done only by helicopter because the airport was under attack.

**F. 1979**

- Lt. Donna L Spruill became the first Navy woman pilot to carrier qualify in a fixed-wing aircraft. She piloted a C-1A Trader to an arrested landing aboard the *Independence*.
- VP-23, flying the P-3C Orion, fired the new Harpoon missile. VP-23 was the first operational fleet patrol squadron to receive, fire, and make an operational deployment with the Harpoon missile.

**G. 1980**

- VFA-125, the Navy's first F/A-18 Hornet squadron, was established at NAS Lemoore, CA. The new squadron would train Navy and Marine Corps personnel to fly and maintain the new fighter-attack aircraft.

**SHOW SLIDE 4-2-33 F/A-18 HORNET**

**XII. DIAMOND ANNIVERSARY DECADE****A. 1981**

- The era of Enlisted Naval Aviators came to a close when the last enlisted pilot, Master Chief Robert K. Jones, retired after 38 years of service.



DISCUSSION POINT	RELATED INSTRUCTOR ACTIVITY
<ul style="list-style-type: none"> <li>• Two F-14 Tomcats of VF-41 shot down two Libyan Su-22 aircraft over international waters.</li> </ul> <p><b>B. 1982</b></p> <ul style="list-style-type: none"> <li>• Ensign Jannine Weiss became the first enlisted woman to receive her wings and commission under the new Limited Duty Officer Aviator Program.</li> </ul> <p><b>C. 1983</b></p> <ul style="list-style-type: none"> <li>• Lt. Leslie E. Provow became the first woman to be designated a Landing Signal Officer.</li> <li>• Lt. Colleen Nevius became the first woman Naval Aviator to graduate from the U.S. Naval Test Pilot School and be designated a Navy Test Pilot.</li> </ul> <p><b>D. 1987</b></p> <ul style="list-style-type: none"> <li>• VC-6 Det 1 deployed aboard the <i>Iowa</i> (BB 61) with the Pioneer RPV for a NATO and Indian Ocean cruise. This marked the beginning of battleship-operated RPVs providing independent reconnaissance and naval gunfire support capabilities.</li> </ul> <p><b>E. 1988</b></p> <ul style="list-style-type: none"> <li>• The Navy retaliated against Iran following the incident in which the <i>Samuel B. Roberts</i> (FFG 58) struck and Iranian mine in international waters. CVW-11 squadrons were the major aviation participants.</li> </ul>	<p><b>SHOW SLIDE 4-2-34 F-14 TOMCATS</b></p>

DISCUSSION POINT	RELATED INSTRUCTOR ACTIVITY
<p>F. 1990</p> <ul style="list-style-type: none"> <li>• Commander Rosemary Bryant Mariner relieved Commander Charles Hughes Smith as commanding officer of VAQ-34 and was the first woman selected to command an operational aviation squadron.</li> </ul> <p><b>XIII. THE NINETIES (1991-1999)</b></p> <p>A. 1991</p> <ul style="list-style-type: none"> <li>• Over 100 Tomahawk cruise missiles were launched at preprogrammed targets by nine U.S. Navy ships in the Mediterranean, Persian Gulf, and Red Sea. This was the start of Operation Desert Storm and the first combat launch of the Tomahawk missile.</li> <li>• F/A-18Cs each shot down a MiG-21. They were the first-ever aerial victories for the Hornet.</li> <li>• <i>Nicholas'</i> HSL-44 (Det 8) SH-60Bs provided air targeting while a Kuwaiti patrol boat, two Army helicopter gunships, and the <i>Nicholas</i> (FFG 47) engaged and neutralized Iraqi forces on nine oil platforms in the Durrah oil field.</li> <li>• The first combat use of SLAM occurred when launched from A-6 Intruders and A-7 Corsair IIs.</li> <li>• <i>America's</i> VS-32 became the first S-3 squadron to engage, bomb, and destroy a hostile vessel, an Iraqi gunboat.</li> </ul>	<p><b>SHOW SLIDE 4-2-35 SH-60B</b></p> <p>SLAM-Standoff Land Attack Missile</p>



**D. 1994**

- Lt. Shannon Workman became the first female combat pilot to pass successfully fleet carrier qualifications.
- Sixty-three women received orders to the *Dwight D. Eisenhower*-the first combat ship to have women permanently assigned.

**E. 1995**

- Lt. Commander Wendy Lawrence became the first female Naval Aviator in space when she launched as a crew member on the Space Shuttle *Endeavour*. She was also the first female Naval Academy graduate astronaut.
- The 36-year old *Independence* became the oldest ship in the Navy's active fleet and the first carrier in history to hold that distinction.
- F/A-18 Hornets, F-14 Tomcats, S-3 Vikings, and ES-3A Shadows under the guidance of EA-6B Prowlers and E-2 Hawkeyes from the *Theodore Roosevelt* led the initial attacks on Bosnian Serb military targets in Bosnia during Operation Deliberate Force.
- The F/A-18E Super Hornet made its first flight.

**F. 1996**

- Under a joint program in which the EA-6B Prowler replaces the EF-111 as the Air Force's primary electronic countermeasures aircraft, the

**SHOW SLIDE 4-2-38 F/A-18E SUPER HORNET**

first crew qualified in an EA-6B.

**G. 1997**

- **The Standoff Land Attack Missile**-Expanded Response successfully completed its first test flight after being fired from an F/A-18C Hornet.
- The Joint Standoff Weapon was deployed as an operational weapon system for the first time.

**H. 1998**

- Navy P-3 Orions began flying daily surveillance missions over Kosovo in support of NATO enforcement operations.
- During Operation Desert Fox, naval forces from the Enterprise Battle Group launched strikes against nuclear, chemical, and biological weapons programs to limit Iraq's ability to produce, store, maintain, and deliver weapons of mass destruction and threaten its neighbors.

**I. 1999**

- Three LC-130R Hercules from VXE-6 returned to NAS Point Mugu, CA., after completing their four-month deployment to Antarctica during Operation Deep Freeze.
- Operation Allied Force- Naval aviation contributions included electronic attack, strike warfare, humanitarian operations and the deployment of peacekeeping forces.

**SHOW SLIDE 4-2-39 P-3 ORIONS**

DISCUSSION POINT	RELATED INSTRUCTOR ACTIVITY
<ul style="list-style-type: none"> <li>• <i>Theodore Roosevelt</i> (CVN-71) arrived in the Mediterranean to support Operation Allied Force. TR's CVW-8 embarked 30% of the total naval aircraft deployed, flying 4,270 of the 38000 sorties and destroying and damaging 447 tactical and 88 fixed targets with zero losses.</li> <li>• MH-53E Sea Dragons and H-46 Sea Knights from HMs 14 and 15 embarked aboard the <i>Inchon</i> delivering 6,000 pounds of relief supplies to refugees in Kukes, Albania, marking the beginning of the Navy's contribution to NATO's humanitarian operation Shining Hope.</li> <li>• The first seven training and evaluation F/A-18E/F Super Hornets were delivered to VFA-122 at NAS Lemoore, CA.</li> </ul>	<p><b>SHOW SLIDE 4-2-40 MH-53E, H-46</b></p>
<p><b>XIV. ENTERING THE 21<sup>ST</sup> CENTURY AND THE NEW MILLENNIUM</b></p> <p><b>A. 2000</b></p> <ul style="list-style-type: none"> <li>• VX-9 completed operational testing of the Standoff Land Attack Missile-Expanded Response (SLAM-ER). This missile was intended for surgical strikes against high value targets at standoff ranges greater than 150 miles.</li> <li>• The first production of CH-60S <i>Seahawk</i> made its initial flight at Sikorsky Aircraft Corporation, Stratford, Conn. This plane was intended to replace the CH-46 <i>Sea Knight</i> in the cargo utility</li> </ul>	<p><b>SHOW SLIDE 4-2-41 SLAM-ER</b></p>

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**DISCUSSION POINT**

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**RELATED INSTRUCTOR ACTIVITY**

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role, the MH-53 *Sea Dragon* in the anti-mine warfare role and the HH-60 in the combat SAR role.

- The success of the F/A-18E/F *Super Hornet* operational evaluation was announced, recommending its introduction into the fleet.
- An Omega Air 707-321B arrived at NAS Patuxent River, MD., to begin conversion into the first modern commercial aerial refueling tanker for the fleet.
- The AIM-9X Sidewinder short range air-to-air missile completed its fourth guided launch by intercepting a QF-4 *Phantom II* target. The launch was the first conducted in a dogfight scenario involving defensive infrared countermeasure flares, and the first using the Joint Helmet Mounted Cueing System (JHMCS).
- *Clipper* was approved as the name for the first of the Navy's C-40A transports converted from a 737-700C. Designed to replace the C-9 *Skytrain*, it could carry 121 passengers, 8-pallets, or a combination of both.
- The Navy announced the introduction of SEE/RESCUE, a six-ounce passive and continuous emergency distress signaling pocket/rescue unit requiring no batteries, chemicals, or electronics. During testing the device was visually identified by SAR teams

**SHOW SLIDE 4-2-42 C-40A**

DISCUSSION POINT	RELATED INSTRUCTOR ACTIVITY
<p>from an altitude of up to 3,000 feet and over 1 mile away.</p> <ul style="list-style-type: none"> <li>• The first fleet F/A-18E <i>Super Hornet</i>, flown by Commander Jeffrey Penfield, arrived at VFA-115, Lemoore, CA.</li> </ul> <p><b>V. CORE VALUES</b></p> <p>A. Today, we are a Navy of high tech aircraft, missiles, equipment, and people. It is important, though, for us to remember where the history of Naval Aviation began and how it has developed over time.</p> <p>B. Throughout the years, the people who have had an impact on Naval Aviation have one thing in common-values of good order and discipline based on Honor, Courage and Commitment. It was their core values that made them press forward and lay the foundation for the Naval Aviation we have today.</p> <p>C. The history of Naval Aviation is not just about the use of planes in the Navy. Naval Aviation involves aircraft, places, strategies, wars, and most importantly, people.</p>	<p><b>SHOW SLIDE 4-2-43 CORE VALUES</b></p>



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**DISCUSSION POINT**

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**RELATED INSTRUCTOR ACTIVITY**

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**VI. SUMMARY**

- A. A pictorial and narrative look at the development of Naval Aviation from the beginning of the 20<sup>th</sup> century.
- B. A discussion of the important events and people that make up the history of Naval Aviation.
- C. Naval Aviation and Core Values.